



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/787,219  
Source: IFwo  
Date Processed by STIC: 7/30/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER** VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE
2. U.S. Postal Service: Commissioner for Patents, P.O. Box-1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04): U.S. Patent and Trademark Office, 220 20<sup>th</sup> Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04



IFWO

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/787,219

DATE: 07/30/2004  
TIME: 11:40:38

Input Set : A:\248628US0X.txt  
Output Set: N:\CRF4\07302004\J787219.raw

3 <110> APPLICANT: JESTIN, JEAN-LUC  
4 VICHIER-GUERRE, SOPHIE  
6 <120> TITLE OF INVENTION: METHODS FOR OBTAINING THERMOSTABLE ENZYMES, DNA POLYMERASE I  
7 VARIANTS FROM THERMUS AQUATICUS HAVING NEW CATALYTIC ACTIVITIES,  
8 METHODS FOR OBTAINING THE SAME, AND APPLICATIONS OF THE SAME  
10 <130> FILE REFERENCE: 248628US0X  
12 <140> CURRENT APPLICATION NUMBER: 10/787,219  
13 <141> CURRENT FILING DATE: 2004-02-27  
15 <160> NUMBER OF SEQ ID NOS: 61  
17 <170> SOFTWARE: PatentIn version 3.3  
19 <210> SEQ ID NO: 1  
20 <211> LENGTH: 24  
21 <212> TYPE: DNA  
22 <213> ORGANISM: Artificial Sequence  
24 <220> FEATURE:  
25 <223> OTHER INFORMATION: Synthetic DNA  
27 <400> SEQUENCE: 1  
28 taacaatagg ccggccaccc cttc 24  
31 <210> SEQ ID NO: 2  
32 <211> LENGTH: 18  
33 <212> TYPE: DNA  
34 <213> ORGANISM: Artificial Sequence  
36 <220> FEATURE:  
37 <223> OTHER INFORMATION: Synthetic DNA  
39 <400> SEQUENCE: 2  
40 gagttttgt tctgcggc 18  
43 <210> SEQ ID NO: 3  
44 <211> LENGTH: 27  
45 <212> TYPE: DNA  
46 <213> ORGANISM: Artificial Sequence  
48 <220> FEATURE:  
49 <223> OTHER INFORMATION: Synthetic DNA  
51 <400> SEQUENCE: 3  
52 ttaaatcatc tgcaagtaccc ggagctc 27  
55 <210> SEQ ID NO: 4  
56 <211> LENGTH: 28  
57 <212> TYPE: DNA  
58 <213> ORGANISM: Artificial Sequence  
60 <220> FEATURE:  
61 <223> OTHER INFORMATION: Synthetic DNA  
63 <400> SEQUENCE: 4  
64 ttcatttcttg cttagtcctg ggagaggc 28  
67 <210> SEQ ID NO: 5

Does Not Comply  
Corrected Diskette Needed

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/787,219

DATE: 07/30/2004  
TIME: 11:40:38

Input Set : A:\248628US0X.txt  
Output Set: N:\CRF4\07302004\J787219.raw

68 <211> LENGTH: 43  
69 <212> TYPE: DNA  
70 <213> ORGANISM: Artificial Sequence  
72 <220> FEATURE:  
73 <223> OTHER INFORMATION: Synthetic DNA  
76 <220> FEATURE:  
77 <221> NAME/KEY: misc\_feature *OK*  
78 <222> LOCATION: (15)..(15)  
79 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
80 C and A in the trimer sequence CAR and AVY, respectively  
82 <220> FEATURE:  
83 <221> NAME/KEY: misc\_feature  
84 <222> LOCATION: (16)..(16)  
85 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
86 A and V, in the trimer sequence CAR and AVY, respectively  
88 <220> FEATURE:  
89 <221> NAME/KEY: misc\_feature  
90 <222> LOCATION: (17)..(17)  
91 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
92 R and Y, in the trimer sequence CAR and AVY, respectively  
94 <220> FEATURE:  
95 <221> NAME/KEY: misc\_feature  
96 <222> LOCATION: (24)..(24)  
97 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
98 C and A, in the trimer sequence CAR and AVY, respectively  
100 <220> FEATURE:  
101 <221> NAME/KEY: misc\_feature  
102 <222> LOCATION: (25)..(25)  
103 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance: *? do you mean "V"?*  
104 A and R, in the trimer sequence CAR and AVY, respectively  
106 <220> FEATURE:  
107 <221> NAME/KEY: misc\_feature  
108 <222> LOCATION: (26)..(26)  
109 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
110 R and Y, in the trimer sequence CAR and AVY, respectively  
112 <400> SEQUENCE: 5  
W--> 113 ccggccaccc cttcnncnctc aacnnncggg accagctgga aag 43  
116 <210> SEQ ID NO: 6  
117 <211> LENGTH: 65  
118 <212> TYPE: DNA  
119 <213> ORGANISM: Artificial Sequence  
121 <220> FEATURE:  
122 <223> OTHER INFORMATION: Synthetic DNA  
125 <220> FEATURE:  
126 <221> NAME/KEY: misc\_feature  
127 <222> LOCATION: (17)..(17)  
128 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative

abundance:

129            Y and R, in the trimer sequence  $\begin{smallmatrix} Y \\ Y \\ Y \end{smallmatrix}$  and  $\begin{smallmatrix} R \\ R \\ R \end{smallmatrix}$ , respectively  
131 <220> FEATURE:

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Input Set : A:\248628US0X.txt  
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132 &lt;221&gt; NAME/KEY: misc\_feature

133 &lt;222&gt; LOCATION: (18)..(18)

134 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

135 T and B, in the trimer sequence YTG and RBT, respectively

137 &lt;220&gt; FEATURE:

138 &lt;221&gt; NAME/KEY: misc\_feature

139 &lt;222&gt; LOCATION: (19)..(19)

140 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

141 G and T, in the trimer sequence YTG and RBT, respectively

143 &lt;220&gt; FEATURE:

144 &lt;221&gt; NAME/KEY: misc\_feature

145 &lt;222&gt; LOCATION: (20)..(20)

146 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

147 Y and R, in the trimer sequence YTG and RBT, respectively

149 &lt;220&gt; FEATURE:

150 &lt;221&gt; NAME/KEY: misc\_feature

151 &lt;222&gt; LOCATION: (21)..(21)

152 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

153 T and B, in the trimer sequence YTG and RBT, respectively

155 &lt;220&gt; FEATURE:

156 &lt;221&gt; NAME/KEY: misc\_feature

157 &lt;222&gt; LOCATION: (22)..(22)

158 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

159 G and T, in the trimer sequence YTG and RBT, respectively

161 &lt;220&gt; FEATURE:

162 &lt;221&gt; NAME/KEY: misc\_feature

163 &lt;222&gt; LOCATION: (26)..(26)

164 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

165 Y and R, in the trimer sequence YTG and RBT, respectively

167 &lt;220&gt; FEATURE:

168 &lt;221&gt; NAME/KEY: misc\_feature

169 &lt;222&gt; LOCATION: (27)..(27)

170 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

171 T and B, in the trimer sequence YTG and RBT, respectively

173 &lt;220&gt; FEATURE:

174 &lt;221&gt; NAME/KEY: misc\_feature

175 &lt;222&gt; LOCATION: (28)..(28)

176 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

177 G and T, in the trimer sequence YTG and RBT, respectively

179 &lt;220&gt; FEATURE:

180 &lt;221&gt; NAME/KEY: misc\_feature

181 &lt;222&gt; LOCATION: (44)..(44)

182 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

183 Y and R, in the trimer sequence YTG and RBT, respectively

185 <220> FEATURE:  
186 <221> NAME/KEY: misc\_feature  
187 <222> LOCATION: (45)..(45)  
188 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative  
abundance:  
189 T and B, in the trimer sequence YTG and RBT, respectively

## RAW SEQUENCE LISTING

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Input Set : A:\248628US0X.txt

Output Set: N:\CRF4\07302004\J787219.raw

191 <220> FEATURE:  
 192 <221> NAME/KEY: misc\_feature  
 193 <222> LOCATION: (46)..(46)  
 194 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
 195 G and T, in the trimer sequence YTG and RBT, respectively  
 197 <400> SEQUENCE: 6  
 W--> 198 ggatgaggc cgccaannnn nnaatnnngg tgctttcag cttnnngagc tcccggtact 60  
 200 gcagg 65  
 203 <210> SEQ ID NO: 7  
 204 <211> LENGTH: 62  
 205 <212> TYPE: DNA  
 206 <213> ORGANISM: Artificial Sequence  
 208 <220> FEATURE:  
 209 <223> OTHER INFORMATION: Synthetic DNA  
 212 <220> FEATURE:  
 213 <221> NAME/KEY: misc\_feature  
 214 <222> LOCATION: (17)..(17)  
 215 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
 216 C and A, in the trimer sequence CAR and AVY, respectively  
 218 <220> FEATURE:  
 219 <221> NAME/KEY: misc\_feature  
 220 <222> LOCATION: (18)..(18)  
 221 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
 222 A and V, in the trimer sequence CAR and AVY, respectively  
 224 <220> FEATURE:  
 225 <221> NAME/KEY: misc\_feature  
 226 <222> LOCATION: (19)..(19)  
 227 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
 228 R and Y, in the trimer sequence CAR and AVY, respectively  
 230 <220> FEATURE:  
 231 <221> NAME/KEY: misc\_feature  
 232 <222> LOCATION: (32)..(32)  
 233 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
 234 C and A, in the trimer sequence CAR and AVY, respectively  
 236 <220> FEATURE:  
 237 <221> NAME/KEY: misc\_feature  
 238 <222> LOCATION: (33)..(33)  
 239 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
 240 A and V, in the trimer sequence CAR and AVY, respectively  
 242 <220> FEATURE:  
 243 <221> NAME/KEY: misc\_feature  
 244 <222> LOCATION: (34)..(34)  
 245 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:  
 246 R and Y, in the trimer sequence CAR and AVY, respectively  
 248 <220> FEATURE:  
 249 <221> NAME/KEY: misc\_feature

250 <222> LOCATION: (41)..(41)

251 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

252 C and A, in the trimer sequence CAR and AVY, respectively

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Input Set : A:\248628US0X.txt

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254 &lt;220&gt; FEATURE:

255 <221> NAME/KEY: misc\_feature  
256 <222> LOCATION: (42)..(42)

257 &lt;223&gt; OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

258 A and V, in the trimer sequence CAR and AVY, respectively

260 &lt;220&gt; FEATURE:

261 <221> NAME/KEY: misc\_feature  
262 <222> LOCATION: (43)..(43)

263 &lt;223&gt; OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

264 R and Y, in the trimer sequence CAR and AVY, respectively

266 &lt;400&gt; SEQUENCE: 7

W--> 267 caaccagacg gccacgnna cgggcaggct annnagctcc nnncccaacc tccagaacat 60  
269 cc 62

272 &lt;210&gt; SEQ ID NO: 8

273 &lt;211&gt; LENGTH: 43

274 &lt;212&gt; TYPE: DNA

275 &lt;213&gt; ORGANISM: Artificial Sequence

277 &lt;220&gt; FEATURE:

278 &lt;223&gt; OTHER INFORMATION: Synthetic DNA

281 &lt;220&gt; FEATURE:

282 &lt;221&gt; NAME/KEY: misc\_feature

283 &lt;222&gt; LOCATION: (14)..(14)

284 &lt;223&gt; OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

285 Y and R, in the trimer sequence YTG and RBT, respectively

287 &lt;220&gt; FEATURE:

288 &lt;221&gt; NAME/KEY: misc\_feature

289 &lt;222&gt; LOCATION: (15)..(15)

290 &lt;223&gt; OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

291 T and B, in the trimer sequence YTG and RBT, respectively

293 &lt;220&gt; FEATURE:

294 &lt;221&gt; NAME/KEY: misc\_feature

295 &lt;222&gt; LOCATION: (16)..(16)

296 &lt;223&gt; OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

297 G and T, in the trimer sequence YTG and RBT, respectively

299 &lt;220&gt; FEATURE:

300 &lt;221&gt; NAME/KEY: misc\_feature

301 &lt;222&gt; LOCATION: (23)..(23)

302 &lt;223&gt; OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

303 Y and R, in the trimer sequence YTG and RBT, respectively

305 &lt;220&gt; FEATURE:

306 &lt;221&gt; NAME/KEY: misc\_feature

307 &lt;222&gt; LOCATION: (24)..(24)

308 &lt;223&gt; OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

309 T and B, in the trimer sequence YTG and RBT, respectively

311 &lt;220&gt; FEATURE:

312 &lt;221&gt; NAME/KEY: misc\_feature

313 <222> LOCATION: (25)..(25)

314 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

315 G and T, in the trimer sequence YTG and RBT, respectively

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/787,219

DATE: 07/30/2004  
TIME: 11:40:39

Input Set : A:\248628US0X.txt  
Output Set: N:\CRF4\07302004\J787219.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos. 15, 16, 17, 24, 25, 26  
Seq#:6; N Pos. 17, 18, 19, 20, 21, 22, 26, 27, 28, 44, 45, 46  
Seq#:7; N Pos. 17, 18, 19, 32, 33, 34, 41, 42, 43  
Seq#:8; N Pos. 14, 15, 16, 23, 24, 25  
Seq#:9; N Pos. 20, 21, 22, 38, 39, 40, 44, 45, 46, 47, 48, 49  
Seq#:10; N Pos. 20, 21, 22, 29, 30, 31, 44, 45, 46  
Seq#:11; N Pos. 19, 20, 21, 28, 29, 30

VERIFICATION SUMMARY DATE: 07/30/2004  
PATENT APPLICATION: US/10/787,219 TIME: 11:40:39

Input Set : A:\248628US0X.txt  
Output Set: N:\CRF4\07302004\J787219.raw

L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:403 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0